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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/165,034
Filing Date: October 01, 1998
Appellant(s): NEELY ET AL.

Timothy Cassidy
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed December 6, 2004.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

US 4,834,735	Alemany et al.	05-1989
US 5,143,779	Newkirk et al.	09-1992
US 4,027,672	Karami	06-1977

US 5,611,879	Morman	03-1997
US 5,360,420	Cook et al.	11-1994

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

A. Claims 1, 2, 7, 9, 10, 15, 16, 27-32, 34, 35, 38-44, 49, 50, and 62-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alemany et al. (U.S. Patent No. 4,834,735) in view of Newkirk et al. (U.S. Patent No. 5,143,779).

Alemany et al. teach an absorbent article wherein the deposition region of its absorbent member comprises a storage zone and an acquisition zone having a lower average density and a lower average basis weight per unit area than the storage zone (Abstract). The ratio of the density between the storage zone and acquisition zone is about or greater than 2:1 (column 2, lines 52-60). The web comprises thermoplastic fibers because Alemany et al. disclose using polyester fibers (column 8, line 9). Alemany et al. teach calendering the web (column 18, lines 3-12), thus compressing it. However, Alemany et al. fail to teach the calendering process involves thermally bonding the fibers. Newkirk et al. disclose a nonwoven fabric that is both compressed and thermally bonded (column 4, lines 30-41). Newkirk et al. teach that such a nonwoven fabric has strength, softness, and compression resistance to make it suitable for use in absorbent products (column 3, lines 65-68). It would have been obvious to a person having ordinary skill in the art at the time of the invention to thermally bond the absorbent web of Alemany et al. in order to provide improved strength, softness, and compression, as taught by Newkirk et al. With regard to claims 9, 27 and 35, Alemany

et al. disclose the basis weights to be between 0.02 and 0.186 g/cm2 (column 13, line 66) for the storage zone and between 0.015 and 0.1 g/cm^2 for the acquisition zone (column 14, line 49), and 1 g/cm^2 is equal to about 295 oz/yd^2. Further regarding claim 35, Alemany et al. disclose additional layers (column 4, lines 25-27). With regard to claims 2, 27, 34, and 38, Alemany et al. do not teach the web to comprise a spunbonded web. Newkirk et al. disclose the nonwoven layer can be made from a spunbonded web (column 4, line 33). It would have been obvious to one skilled in the art to manufacture the absorbent web of Alemany et al. by spunbonding rather than air-laying in order to provide a stronger, continuous fabric material. With regard to claims 7 and 30, Newkirk et al. disclose using polypropylene for the spunbonded web (column 4, line 67). With regard to claims 10, 16, and 31, Newkirk et al. teach that crimped fibers offer increased loft in the nonwoven web and bicomponent fibers are easily crimpable (column 4, lines 57-62). With regard to claim 15, Alemany et al. make the web by airlaying (column 18, line 4). With regard to claim 32, the first area would comprise 25 to 75% of the web (Figure 3). With regard to claim 39, the topsheet can comprise a spunbonded web (column 5, line 12), which could be considered the third layer. With regard to claim 40, Alemany et al. disclose the backsheet can be polyethylene film (column 5, lines 26-27). With regard to claim 41, Alemany et al. disclose the topsheet can be non-woven (column 5, line 11). With regard to claims 42 and 44, Alemany et al. disclose the article can be a disposable diaper or personal care product (column 1, lines 52-53). With regard to claim 43, Alemany et al. do not disclose the articles useful as a wiper product. It would have been obvious to one skilled in the art to use the absorbent

material disclosed by Alemany et al. as a wiper product, since it is well known within the art that absorbent articles useful in personal care products and diapers can also be employed as a wiper product. With regard to claim 49 and 50, the acquisition zones extend in both the machine and cross machine direction in the form of various shapes (column 17, lines 1-12). With regard to claims 62, 65, 66, 69, 70, 73, Newkirk et al. disclose through-air bonding followed by calendaring (column 6, lines 29-33). With regard to claims 63, 67, and 71, Newkirk et al. disclose that pattern bonding has an attractive balance of loft, softness, and strength (column 6, lines 8-18). With regard to claims 64, 68, and 72, through-air bonding after calendering is an alteration of the processing steps that would not create a materially different product.

B. Claims 3-6, 11, 33, 37, 48, and 59-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alemany et al. in view of Newkirk et al. as applied to claims 1, 27, and 35 above, and further in view of Karami (U.S. Patent No. 4,027,672).

Alemany et al. do not disclose the lower basis weight area and the higher basis weight area to form a repeating pattern of alternating columns. However, this pattern is already known in the art of absorbent webs. Karami teaches various patterns of densified regions in a nonwoven absorbent pad, including alternating columns (Figure 8) and where the first area surrounds the second area (Figure 5). It would have been obvious to one skilled in the art to use the densified patterns disclosed by Karami in the absorbent pad of Alemany et al. in order to derive the absorbing and transporting properties in the patterned web taught by Karami. With regard to claim 6, it would have been obvious to one skilled in the art to include alternating rows of densified regions as

well as alternating columns in order to further increase the variance in absorbing and transporting properties of the web. With regard to claim 11, Karami shows the densified and undensified portions to exist in a 1:1 ratio (Figure 8).

C. Claims 12, 14, 36, 45-47, 77, and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alemany et al. in view of Newkirk et al. as applied to claims 1, 27, and 35 above, and further in view of Morman (U.S. Patent No. 5,611,879).

Neither Alemany nor Newkirk disclose using both pulp fibers and polymeric fibers in the absorbent web. Also, neither reference discloses using meltblown fabrics for the web. Morman discloses that spunbond, meltblown, and coform webs may all be used in absorbent articles (column 4, lines 9-28). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use meltblown or coform webs in the absorbent article of Alemany et al., since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use.

(10) Response to Argument

Appellant argues that Alemany et al. teach away from thermal bonding. Appellant supports the argument by pointing out that Alemany et al. disclose as preferred embodiments for the storage zone, structures consisting essentially of those found in EP 122,042 and US 4,673,402, which teach absorbent structures that are substantially unbonded. However, MPEP § 2123 states, "Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments." Alemany et al. do not restrict the invention to unbonded

structures, so there is no teaching away from thermally bonding. The broader disclosure is directed to providing advantageous acquisition, distribution, and wicking properties (column 2, lines 12-20). Newkirk et al. teach a similar goal (column 2, line 3). There is no recitation in the Alemany et al. patent that thermal bonding is detrimental, and Alemany et al. teach that other high capillary structures may also be used (column 13, lines 51-52).

Appellant next argues that no motivation, suggestion, or incentive exists in the references to combine them in order to improve the strength of the web. In support, Appellant asserts Alemany et al. explicitly teaches away from thermally bonding the web. However, the Examiner finds no support in the reference for this explicit teaching. Motivation for combining the references exists because Newkirk et al. teach that thermally bonding the absorbent web of Alemany et al. would provide improved strength, softness, and compression, so the references are properly combined.

Appellant argues that it would not have been obvious to replace the substantially unbonded, air-laid absorbent member disclosed by Alemany et al. with the coverstock or spacer fabric disclosed in Newkirk et al. However, Newkirk et al. teach that spacer fabrics provide liquid acquisition, distribution, and wicking functions (column 2, line 3). Similarly, Alemany teaches the absorbent web of his invention also provide advantageous acquisition, distribution, and wicking properties (column 2, lines 12-20). Thus, both webs of Alemany and Newkirk are designed to acquire and distribute fluid in an absorbent article. Both materials are designed to have a similar function. What they are called and how they are layered in their respective references is not as important as

what they do. Combination of references is appropriate when both references are directed towards solving the same problem. Appellant distinguishes between a spacer layer and an absorbent core layer. However, in the art of absorbent articles, spacer layers are often thought of as being a part of the core layer (see U.S. Patent No. 5,360,420 to Cook et al., column 4, lines 15-41). So distinguishing these types of layers is difficult.

Appellant argues there is no motivation to combine either the Karami or Morman references to correct the deficiencies of Alemany et al. and Newkirk et al. However, the Examiner feels there exists no such deficiencies in Alemany et al. and Newkirk et al., and proper motivation for the further combination with the Karami and Morman references is set forth above in the rejections.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Jeremy R. Pierce
Examiner
Art Unit 1771

ELIZABETH M. COLE
PRIMARY EXAMINER

February 2, 2005

Conferees

Terrell Morris, SPE 1771 -Tm

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